

WHAT IS CLAIMED IS:

1. An isolated polypeptide comprising a sequence that is at least 70% identical to SEQ ID NO: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, or 11.
2. The isolated polypeptide of claim 1, wherein the sequence is at least 80% identical to SEQ ID NO: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, or 11.
3. The isolated polypeptide of claim 2, wherein the sequence is at least 90% identical to SEQ ID NO: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, or 11.
4. The isolated polypeptide of claim 3, wherein the sequence is at least 95% identical to SEQ ID NO: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, or 11.
5. The isolated polypeptide of claim 4, wherein the sequence is SEQ ID NOs: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, or 11.
6. An isolated nucleic acid comprising a sequence that encodes the polypeptide of claim 1.
7. An isolated nucleic acid that, under a high stringency condition, hybridizes to a probe containing a sequence selected from the group consisting of SEQ ID NOs: 12-22; or a complement thereof.
8. A vector comprising a nucleotide of claim 6.
9. A vector comprising a nucleotide of claim 7.
10. A host cell comprising a nucleotide of claim 6.
11. A host cell comprising a nucleotide of claim 7.

12. The host cell of claim 10, wherein the host cell is an E. coli, a yeast, an insect, a plant, or a mammalian cell.

13. The host cell of claim 11, wherein the host cell is an E. coli, a yeast, an insect, a plant, or a mammalian cell.

14. A method of producing a polypeptide, the method comprising culturing the host cell of claim 10 in a medium under conditions permitting expression of the polypeptide, and isolating the polypeptide.

15. A method of producing a polypeptide, the method comprising culturing the host cell of claim 11 in a medium under conditions permitting expression of the polypeptide, and isolating the polypeptide.

16. A transformed plant cell that lacks a polypeptide containing a sequence of SEQ ID NO: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, or 11, wherein, compared with the wild type cell, the transformed plant cell has a higher tolerance to salt, chilling, pathogens, oxidative stress, or water-deficit due to absence of expression of the polypeptide.

17. The plant cell of claim 16, wherein the cell is an Arabidopsis cell.

18. A transgenic plant that lacks a polypeptide containing a sequence of SEQ ID NO: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, or 11, wherein, compared with the wild type plant, the transgenic plant has a higher tolerance to salt, chilling, pathogens, oxidative stress, or water-deficit due to absence of expression of the polypeptide

19. The transgenic plant of claim 18, wherein the plant is Arabidopsis.

20. A method of producing a transformed plant cell, the method comprising introducing into a plant cell a nucleic acid that decreases the expression of a gene encoding a polypeptide of SEQ ID NO: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, or 11, wherein, compared with the wild type cell, the transformed plant cell has a higher tolerance to salt, chilling, pathogens, oxidative stress, or water-deficit due to absence of the polypeptide.

21. A method of producing a transgenic plant, the method comprising:
introducing into a plant cell a nucleic acid that decreases the expression of a gene encoding a polypeptide of SEQ ID NO: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, or 11, and
cultivating the cell to generate a plant,
wherein, compared with the wild type plant, the transgenic plant has a higher tolerance to salt, chilling, pathogens, oxidative stress, or water-deficit due to absence of the polypeptide.

22. A transformed plant cell comprising a recombinant nucleic acid that encodes a heterologous polypeptide of SEQ ID NO: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, or 11.

23. A transgenic plant comprising a recombinant nucleic acid that encodes a heterologous polypeptide of SEQ ID NO: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, or 11.

24. A method of producing a transformed plant cell, the method comprising:
introducing into a plant cell a recombinant nucleic acid encoding a heterologous polypeptide of SEQ ID NO: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, or 11, and
expressing the polypeptide in the cell.

25. A method of producing a transgenic plant, the method comprising:
introducing into a plant cell a recombinant nucleic acid encoding a heterologous polypeptide of SEQ ID NO: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, or 11,
expressing the polypeptide in the cell, and
cultivating the cell to generate a plant.